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WHAT IS CLAIMED IS:

- bB' 1. A press device for treating a fibrous material web comprising:
- a shoe press unit, said shoe press unit comprising a flexible press belt that revolves around a non-rotating carrier;
- 5 a counter roll, said counter roll comprising a deflection compensation roll with a roll jacket revolving around a second non-rotating carrier;
- a third roll;
- a roll nip, said roll nip formed between said counter roll and said third roll;
- a press nip, said press nip elongated in a web travel direction, and formed
- 10 between said shoe press unit and said counter roll;
- at least one first support element, the flexible press belt supported on the non-rotating carrier by said at least one first support element in the region of the elongated press nip; and
- at least one second support element, the roll jacket supported on the second non-
- 15 rotating carrier by said at least one second support element in the region of the elongated press nip,
- wherein a changeable pressure differential occurs between internal pressures generated by the at least one first support element acting on the flexible press belt of the shoe press unit, and the at least one second support element acting on the roll jacket of
- 20 the counter roll.
2. The press device according to claim 1, the at least one first support element being pressure fluid-actuated.
3. The press device according to claim 1, the at least one second support element being pressure fluid-actuated.
- 25 4. The press device according to claim 1, , the fibrous material web comprising at least one of a paper web and a cardboard web.
5. The press device according to claim 1, a line force differential between the shoe press unit and the counter roll being changeable with the pressure differential.

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6. The press device according to claim 1, a cross-section of the pressure differential being produced lateral to the web travel direction, the cross-section of the pressure differential being changeable so different pressure differentials are adjustable over the width.

5 7. The press device according to claim 5, the line force in the roll nip changeable by way of the pressure differential.

8. The press device according to claim 7, line forces that are at least essentially even being adjusted in the roll nip by way of the variable pressure differential.

10 9. The press device according to claim 5, one of the pressure differential and the line force differential being continuously changeable in areas.

10. The press device according to claim 1, the internal pressure produced by the at least one first support element being changeable to change the pressure differential.

15 11. The press device according to claim 1, the internal pressure produced by the at least one second support element being changeable to change the pressure differential.

12. The press device according to claim 1, both the internal pressure produced by the at least one first support element and the internal pressure produced by the at least one second support element being changeable to change the pressure differential.

20 *hB2* 13. The press device according to claim 1, the at least one first support element and the at least one second support element being connected to a common pressure fluid line, an adjustable pressure reduction device provided in at least one of the pressure fluid connection between the common pressure fluid line and the at least one first support element, and the pressure fluid connection between the common pressure fluid line and the at least one second support element, the pressure differential being changeable by the adjustable pressure reduction device.

25 14. The press device according to claim 13, at least one of the at least one first support element and the at least one second support element being connected to the common pressure fluid line one of individually, in groups, and all together.

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15. The press device according to claim 14, the adjustable pressure reduction device being provided between at least one of the groups of the at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element connected to the common pressure fluid line in groups.

16. The press device according to claim 14, the adjustable pressure reduction device being provided between at least one individual at least one second support element and the common pressure fluid line, thereby reducing the pressure of the at least one second support element individually connected to the common pressure fluid line.

17. The press device according to claim 13, the adjustable pressure reduction device including at least one variably adjustable valve.

18. The press device according to claim 5, at least one of the pressure differential and the line force differential being externally adjustable.

19. The press device according to claim 5, at least one of the pressure differential and the line force differential being adjustable by one of mechanically, hydraulically, pneumatically, manually, by remote control, at the site, from a control position, and in a process-guided manner.

20. The press device according to claim 1, the pressure differential being adjustable as a function of a line force in the roll nip by predeterminable characteristic curves.

21. The press device according to claim 1, the pressure differential being adjustable as a function of line force correction procedures for the roll nip, wherein the line force correction procedures may be at least one of input by way of an electronic control and produced by way of corresponding signals of a process guidance system.

22. The press device according to claim 1, the pressure differential being adjustable by way of a regulating system that includes at least one closed regulation loop.

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23. The press device according to claim 1, a line force in a second roll nip formed between the third roll and a fourth roll being changeable by way of the pressure differential.

24. The press device according to claim 1, at least one of the counter roll and the third roll being cambered.

25. The press device according to claim 23, the third roll, the fourth roll, and the counter roll being cambered.

26. The press device according to claim 1, the shoe press unit comprising a shoe press roll and the flexible press belt, the flexible press belt comprising a flexible press jacket.

27. The press device according to claim 1, the shoe press unit disposed above the counter roll.

28. The press device according to claim 1, the ends of the roll jacket of the counter roll being supported on the relevant carrier so that the roll jacket cannot move radially.

29. The press device according to claim 1, an action plane of the at least one second support element of the counter roll inclined slightly in relation to a second action plane of the at least one first support element of the shoe press unit, wherein an inclination angle lies in a range from about 2° to 15°.

30. The press device according to claim 29, the inclination angle lies in a range from about 4° to 8°.

31. The press device according to claim 1, an action plane of the at least one second support element of the counter roll coinciding, at least essentially, with a second action plane of the at least one first support element of the shoe press unit.

32. The press device according to claim 1, comprising pressure-active surfaces of the at least one second support element being not equal to second pressure-active surfaces of the at least one first support element of the shoe press unit.

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33. A method of treating a fibrous material with a press device capable of variably adjustable pressure and variably adjustable line force, said method comprising:

forming a press nip between a shoe press unit and a counter roll, the press nip elongated in a web travel direction;

5 supporting a flexible press belt, that revolves around a non-rotating carrier, on at least one first support unit, the flexible press belt supported in the region of the elongated press nip;

forming a roll nip between the counter roll and a third roll;

10 supporting a roll jacket, that revolves around a second non-rotating carrier, on at least one second support unit, the roll jacket supported in the region of the elongated press nip;

supplying a fluid to the at least one first support unit and the at least one second support unit;

15 adjusting a pressure differential between internal pressures generated by the at least one first support element acting on the flexible press belt, and the at least one second support element acting on the roll jacket; the pressure differential adjusted by adjusting of the pressure of the fluid supplied to the at least one first support unit and the at least one second support unit.

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